Unni Olsbye

List of Publications by Citations

155 papers	17,970 citations	59 h-index	133 g-index
163 ext. papers	20,467 ext. citations	7.3 avg, IF	6.6 L-index

#	Paper	IF	Citations
155	A new zirconium inorganic building brick forming metal organic frameworks with exceptional stability. *Journal of the American Chemical Society*, **2008**, 130, 13850-1	16.4	4225
154	Conversion of methanol to hydrocarbons: how zeolite cavity and pore size controls product selectivity. *Angewandte Chemie - International Edition*, **2012**, 51, 5810-31	16.4	1217
153	Synthesis and Stability of Tagged UiO-66 Zr-MOFs. *Chemistry of Materials*, **2010**, 22, 6632-6640	9.6	1210
152	Conversion of methanol to hydrocarbons over zeolite H-ZSM-5: On the origin of the olefinic species. *Journal of Catalysis*, **2007**, 249, 195-207	7.3	767
151	Defect Engineering: Tuning the Porosity and Composition of the Metal–Organic Framework UiO-66 via Modulated Synthesis. *Chemistry of Materials*, **2016**, 28, 3749-3761	9.6	596
150	Conversion of methanol into hydrocarbons over zeolite H-ZSM-5: ethene formation is mechanistically separated from the formation of higher alkenes. *Journal of the American Chemical Society*, **2006**, 128, 14770-1	16.4	509
149	Tuned to Perfection: Ironing Out the Defects in Metal–Organic Framework UiO-66. *Chemistry of Materials*, **2014**, 26, 4068-4071	9.6	472
148	Methanol to gasoline over zeolite H-ZSM-5: Improved catalyst performance by treatment with NaOH. *Applied Catalysis A: General*, **2008**, 345, 43-50	5.1	393
147	Product shape selectivity dominates the Methanol-to-Olefins (MTO) reaction over H-SAPO-34 catalysts. *Journal of Catalysis*, **2009**, 264, 77-87	7.3	308
146	Post-synthetic modification of the metal–organic framework compound UiO-66. *Journal of Materials Chemistry*, **2010**, 20, 9848		280
145	Space- and time-resolved in-situ spectroscopy on the coke formation in molecular sieves: methanol-to-olefin conversion over H-ZSM-5 and H-SAPO-34. *Chemistry - A European Journal*, **2008**, 14, 11320-7	4.8	264
144	The formation and degradation of active species during methanol conversion over protonated zeotype catalysts. *Chemical Society Reviews*, **2015**, 44, 7155-76	58.5	237
143	Mechanistic insight into the methanol-to-hydrocarbons reaction. *Catalysis Today*, **2005**, 106, 108-111	5.3	214
142	Coke formation during the methanol-to-olefin conversion: in situ microspectroscopy on individual H-ZSM-5 crystals with different Brønsted acidity. *Chemistry - A European Journal*, **2011**, 17, 2874-84	4.8	205
141	Methane to Methanol: Structure-Activity Relationships for Cu-CHA. *Journal of the American Chemical Society*, **2017**, 139, 14961-14975	16.4	202
140	The mechanisms of ethene and propene formation from methanol over high silica H-ZSM-5 and H-beta. *Catalysis Today*, **2009**, 142, 90-97	5.3	195
139	The methanol-to-hydrocarbons reaction: insight into the reaction mechanism from [12C]benzene and [13C]methanol coreactions over zeolite H-beta. *Journal of Catalysis*, **2004**, 221, 1-10	7.3	183

138	The Effect of Acid Strength on the Conversion of Methanol to Olefins Over Acidic Microporous Catalysts with the CHA Topology. *Topics in Catalysis*, **2009**, 52, 218-228	2.3	182
137	Shape Selectivity in the Conversion of Methanol to Hydrocarbons: The Catalytic Performance of One-Dimensional 10-Ring Zeolites: ZSM-22, ZSM-23, ZSM-48, and EU-1. *ACS Catalysis*, **2012**, 2, 26-37	13.1	175
136	Structural determination of a highly stable metal-organic framework with possible application to interim radioactive waste scavenging: Hf-UiO-66. *Physical Review B*, **2012**, 86,	3.3	165
135	Coke precursor formation and zeolite deactivation: mechanistic insights from hexamethylbenzene conversion. *Journal of Catalysis*, **2003**, 215, 30-44	7.3	159
134	Conversion of Methanol to Alkenes over Medium- and Large-Pore Acidic Zeolites: Steric Manipulation of the Reaction Intermediates Governs the Ethene/Propene Product Selectivity. *Journal of Physical Chemistry C*, **2007**, 111, 17981-17984	3.8	152
133	Umwandlung von Methanol in Kohlenwasserstoffe: Wie Zeolith-Hohlr□me und Porengr□ die Produktselektivit□ bestimmen. *Angewandte Chemie*, **2012**, 124, 5910-5933	3.6	148
132	Catalyst deactivation by coke formation in microporous and desilicated zeolite H-ZSM-5 during the conversion of methanol to hydrocarbons. *Journal of Catalysis*, **2013**, 307, 62-73	7.3	146
131	Structure-performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. *Nature Chemistry*, **2018**, 10, 804-812	17.6	145
130	Cu-CHA - a model system for applied selective redox catalysis. *Chemical Society Reviews*, **2018**, 47, 8097-8133	[illegible]	138
129	Kinetic studies of zeolite-catalyzed methylation reactions. Part 2. Co-reaction of [12C]propene or [12C]n-butene and [13C]methanol. *Journal of Catalysis*, **2005**, 234, 385-400	7.3	136
128	Conversion of methanol into light olefins over ZSM-5 zeolite: Strategy to enhance propene selectivity. *Applied Catalysis A: General*, **2012**, 447-448, 178-185	5.1	130
127	Selectivity control through fundamental mechanistic insight in the conversion of methanol to hydrocarbons over zeolites. *Microporous and Mesoporous Materials*, **2010**, 136, 33-41	5.3	130
126	Conversion of methanol over 10-ring zeolites with differing volumes at channel intersections: comparison of TNU-9, IM-5, ZSM-11 and ZSM-5. *Physical Chemistry Chemical Physics*, **2011**, 13, 2539-49	3.6	129
125	Mesopore formation in zeolite H-SSZ-13 by desilication with NaOH. *Microporous and Mesoporous Materials*, **2010**, 132, 384-394	5.3	129
124	Functionalizing the Defects: Postsynthetic Ligand Exchange in the Metal Organic Framework UiO-66. *Chemistry of Materials*, **2016**, 28, 7190-7193	9.6	125
123	Methanol to hydrocarbons over large cavity zeolites: Toward a unified description of catalyst deactivation and the reaction mechanism. *Journal of Catalysis*, **2010**, 275, 170-180	7.3	123
122	The Nuclearity of the Active Site for Methane to Methanol Conversion in Cu-Mordenite: A Quantitative Assessment. *Journal of the American Chemical Society*, **2018**, 140, 15270-15278	16.4	123
121	Methanol-to-hydrocarbons conversion: The alkene methylation pathway. *Journal of Catalysis*, **2014**, 314, 159-169	7.3	108

120	Synthesis and characterization of amine-functionalized mixed-ligand metal-organic frameworks of UiO-66 topology. *Inorganic Chemistry*, **2014**, 53, 9509-15	5.1	108
119	Methylation of benzene by methanol: Single-site kinetics over H-ZSM-5 and H-beta zeolite catalysts. *Journal of Catalysis*, **2012**, 292, 201-212	7.3	105
118	Probing Reactive Platinum Sites in UiO-67 Zirconium Metal□Organic Frameworks. *Chemistry of Materials*, **2015**, 27, 1042-1056	9.6	95
117	Shape-Selective Conversion of Methanol to Hydrocarbons Over 10-Ring Unidirectional-Channel Acidic H-ZSM-22. *ChemCatChem*, **2009**, 1, 78-81	5.2	95
116	UiO-67-type Metal-Organic Frameworks with Enhanced Water Stability and Methane Adsorption Capacity. *Inorganic Chemistry*, **2016**, 55, 1986-91	5.1	94
115	How defects and crystal morphology control the effects of desilication. *Catalysis Today*, **2011**, 168, 38-47	5.3	94
114	Hydrogen storage in Chabazite zeolite frameworks. *Physical Chemistry Chemical Physics*, **2005**, 7, 3197-203	3.6	93
113	Mechanistic Aspects of the Zeolite Catalyzed Methylation of Alkenes and Aromatics with Methanol: A Review. *Topics in Catalysis*, **2011**, 54, 897-906	2.3	91
112	H-SAPO-5 as methanol-to-olefins (MTO) model catalyst: Towards elucidating the effects of acid strength. *Journal of Catalysis*, **2013**, 298, 94-101	7.3	89
111	The influence of catalyst acid strength on the methanol to hydrocarbons (MTH) reaction. *Catalysis Today*, **2013**, 215, 216-223	5.3	84
110	Methylation of alkenes and methylbenzenes by dimethyl ether or methanol on acidic zeolites. *Journal of Physical Chemistry B*, **2005**, 109, 12874-8	3.4	81
109	High Zn/Al ratios enhance dehydrogenation vs hydrogen transfer reactions of Zn-ZSM-5 catalytic systems in methanol conversion to aromatics. *Journal of Catalysis*, **2018**, 362, 146-163	7.3	78
108	Characterization of Pt,Sn/Mg(Al)O Catalysts for Light Alkane Dehydrogenation by FT-IR Spectroscopy and Catalytic Measurements. *Journal of Physical Chemistry C*, **2007**, 111, 14732-14742	3.8	78
107	New insights into catalyst deactivation and product distribution of zeolites in the methanol-to-hydrocarbons (MTH) reaction with methanol and dimethyl ether feeds. *Catalysis Science and Technology*, **2017**, 7, 2700-2716	5.5	77
106	Ethene Oligomerization in Ni-Containing Zeolites: Theoretical Discrimination of Reaction Mechanisms. *ACS Catalysis*, **2016**, 6, 1205-1214	13.1	75
105	Propane dry reforming to synthesis gas over Ni-based catalysts: Influence of support and operating parameters on catalyst activity and stability. *Journal of Catalysis*, **2007**, 249, 250-260	7.3	74
104	Conversion of Methanol to Hydrocarbons: The Reactions of the Heptamethylbenzenium Cation over Zeolite H-Beta. *Catalysis Letters*, **2004**, 93, 37-40	2.8	74
103	Hydrogen Transfer versus Methylation: On the Genesis of Aromatics Formation in the Methanol-To-Hydrocarbons Reaction over H-ZSM-5. *ACS Catalysis*, **2017**, 7, 5773-5780	13.1	73

102	A Highly Stable Copper-Based Catalyst for Clarifying the Catalytic Roles of Cu and Cu Species in Methanol Dehydrogenation. *Angewandte Chemie - International Edition*, **2018**, 57, 1836-1840	16.4	72
101	Hydrogenation of CO to Methanol by Pt Nanoparticles Encapsulated in UiO-67: Deciphering the Role of the Metal-Organic Framework. *Journal of the American Chemical Society*, **2020**, 142, 999-1009	16.4	72
100	Structure–deactivation relationships in zeolites during the methanol-to-hydrocarbons reaction: Complementary assessments of the coke content. *Journal of Catalysis*, **2017**, 351, 33-48	7.3	65
99	Influence of additives in defining the active phase of the ethylene oxychlorination catalyst. *Physical Chemistry Chemical Physics*, **2010**, 12, 5605-18	3.6	62
98	Designing Heterogeneous Catalysts by Incorporating Enzyme-Like Functionalities into MOFs. *Topics in Catalysis*, **2010**, 53, 859-868	2.3	62
97	In situ XPS investigation of Pt(Sn)/Mg(Al)O catalysts during ethane dehydrogenation experiments. *Surface Science*, **2007**, 601, 30-43	1.8	60
96	Kinetic modeling of deactivation profiles in the methanol-to-hydrocarbons (MTH) reaction: A combined autocatalytic–hydrocarbon pool approach. *Journal of Catalysis*, **2013**, 308, 122-130	7.3	57
95	Watching the methanol-to-olefin process with time- and space-resolved high-energy operando X-ray diffraction. *Angewandte Chemie - International Edition*, **2012**, 51, 7956-9	16.4	57
94	Mechanistic Insight in the Ethane Dehydrogenation Reaction over Cr/Al2O3 Catalysts. *Catalysis Letters*, **2005**, 103, 143-148	2.8	55
93	Product yield in methanol conversion over ZSM-5 is predominantly independent of coke content. *Microporous and Mesoporous Materials*, **2012**, 164, 190-198	5.3	54
92	Quantification of copper phases, their reducibility and dispersion in doped-CuCl2/Al2O3 catalysts for ethylene oxychlorination. *Dalton Transactions*, **2010**, 39, 8437-49	4.3	54
91	X-ray imaging of zeolite particles at the nanoscale: influence of steaming on the state of aluminum and the methanol-to-olefin reaction. *Angewandte Chemie - International Edition*, **2012**, 51, 3616-9	16.4	53
90	Benzene co-reaction with methanol and dimethyl ether over zeolite and zeotype catalysts: Evidence of parallel reaction paths to toluene and diphenylmethane. *Journal of Catalysis*, **2017**, 349, 136-148	7.3	52
89	CO2 Hydrogenation over Pt-Containing UiO-67 Zr-MOFs—The Base Case. *Industrial & Engineering Chemistry Research*, **2017**, 56, 13206-13218	3.9	52
88	Effect of framework topology of SAPO catalysts on selectivity and deactivation profile in the methanol-to-olefins reaction. *Journal of Catalysis*, **2017**, 352, 191-207	7.3	51
87	Methane conversion to light olefins—How does the methyl halide route differ from the methanol to olefins (MTO) route?. *Catalysis Today*, **2011**, 171, 211-220	5.3	48
86	1-Butene Oligomerization in Brønsted Acidic Zeolites: Mechanistic Insights from Low-Temperature in Situ FTIR Spectroscopy. *Journal of Physical Chemistry B*, **2004**, 108, 7862-7870	3.4	48
85	In Situ FT-IR Mechanistic Investigations of the Zeolite Catalyzed Methylation of Benzene with Methanol: H-ZSM-5 versus H-beta. *Topics in Catalysis*, **2011**, 54, 1293-1301	2.3	47

84	Morphology-induced shape selectivity in zeolite catalysis. *Journal of Catalysis*, **2015**, 327, 22-32	7.3	43
83	A Straightforward Descriptor for the Deactivation of Zeolite Catalyst H-ZSM-5. *ACS Catalysis*, **2017**, 7, 8235-8246	13.1	42
82	Modulator Effect in UiO-66-NDC (1,4-Naphthalenedicarboxylic Acid) Synthesis and Comparison with UiO-67-NDC Isoreticular Metal‐Organic Frameworks. *Crystal Growth and Design*, **2017**, 17, 5422-5431	3.5	42
81	How zeolitic acid strength and composition alter the reactivity of alkenes and aromatics towards methanol. *Journal of Catalysis*, **2015**, 328, 186-196	7.3	42
80	Ethene oligomerization on nickel microporous and mesoporous-supported catalysts: Investigation of the active sites. *Catalysis Today*, **2018**, 299, 154-163	5.3	39
79	Direct Conversion of Syngas into Light Olefins with Low CO2 Emission. *ACS Catalysis*, **2020**, 10, 2046-2059	13.1	39
78	Operando study of palladium nanoparticles inside UiO-67 MOF for catalytic hydrogenation of hydrocarbons. *Faraday Discussions*, **2018**, 208, 287-306	3.6	37
77	Oligomerization of Light Olefins Catalyzed by Brønsted-Acidic Metal-Organic Framework-808. *Journal of the American Chemical Society*, **2019**, 141, 11557-11564	16.4	36
76	On How Copper Mordenite Properties Govern the Framework Stability and Activity in the Methane-to-Methanol Conversion. *ACS Catalysis*, **2019**, 9, 365-375	13.1	36
75	Time- and space-resolved study of the methanol to hydrocarbons (MTH) reaction - influence of zeolite topology on axial deactivation patterns. *Faraday Discussions*, **2017**, 197, 421-446	3.6	34
74	Kinetic and Isotopic Study of Ethane Dehydrogenation over a Semicommercial Pt,Sn/Mg(Al)O Catalyst. *Industrial & Engineering Chemistry Research*, **2008**, 47, 7167-7177	3.9	34
73	Synthesis of mesoporous ZSM-5 zeolite encapsulated in an ultrathin protective shell of silicalite-1 for MTH conversion. *Microporous and Mesoporous Materials*, **2020**, 292, 109730	5.3	34
72	Synthesis of Titanium Chabazite: A New Shape Selective Oxidation Catalyst with Small Pore Openings and Application in the Production of Methyl Formate from Methanol. *ChemCatChem*, **2011**, 3, 1869-1871	5.2	33
71	Ethene Dimerization on Zeolite-Hosted Ni Ions: Reversible Mobilization of the Active Site. *ACS Catalysis*, **2019**, 9, 5645-5650	13.1	32
70	Intermediates in the Methanol-to-hydrocarbons (MTH) Reaction: A Gas Phase Study of the Unimolecular Reactivity of Multiply Methylated Benzenium Cations. *Catalysis Letters*, **2006**, 109, 25-35	2.8	31
69	Unit cell thick nanosheets of zeolite H-ZSM-5: Structure and activity. *Topics in Catalysis*, **2013**, 56, 558-566	2.3	29
68	Zeolite Surface Methoxy Groups as Key Intermediates in the Stepwise Conversion of Methane to Methanol. *ChemCatChem*, **2019**, 11, 5022-5026	5.2	28
67	Tuning Pt and Cu sites population inside functionalized UiO-67 MOF by controlling activation conditions. *Faraday Discussions*, **2017**, 201, 265-286	3.6	27

66	Catalyst optimization for enhanced propylene formation in the methanol-to-olefins reaction. *Comptes Rendus Chimie*, **2015**, 18, 330-335	2.7	27
65	Single-Pass Catalytic Conversion of Syngas into Olefins via Methanol. *Angewandte Chemie - International Edition*, **2016**, 55, 7294-5	16.4	26
64	The duality of UiO-67-Pt MOFs: connecting treatment conditions and encapsulated Pt species by operando XAS. *Physical Chemistry Chemical Physics*, **2017**, 19, 27489-27507	3.6	25
63	Methane Steam Reforming over a Ni/NiAl2O4 Model Catalyst Kinetics. *ChemCatChem*, **2014**, 6, 1969-1982	5.2	24
62	Time- and space-resolved high energy operando X-ray diffraction for monitoring the methanol to hydrocarbons reaction over H-ZSM-22 zeolite catalyst in different conditions. *Surface Science*, **2016**, 648, 141-149	1.8	23
61	Tuning the Activity and Selectivity of CuCl2/ Al2O3 Ethene Oxychlorination Catalyst by Selective Promotion. *Topics in Catalysis*, **2014**, 57, 741-756	2.3	23
60	Chapter 6:Shape selectivity in zeolite catalysis. The Methanol to Hydrocarbons (MTH) reaction. *Catalysis*,179-217	1.6	23
59	Deactivation of Zeolite Catalyst H-ZSM-5 during Conversion of Methanol to Gasoline: Operando Time- and Space-Resolved X-ray Diffraction. *Journal of Physical Chemistry Letters*, **2018**, 9, 1324-1328	6.4	22
58	Influence of Defects and HO on the Hydrogenation of CO to Methanol over Pt Nanoparticles in UiO-67 Metal-Organic Framework. *Journal of the American Chemical Society*, **2020**, 142, 17105-17118	16.4	22
57	Selective Grafting of Ga(i-Bu)3 on the Silanols of Mesoporous H-ZSM-5 by Surface Organometallic Chemistry. *Journal of Physical Chemistry C*, **2015**, 119, 26611-26619	3.8	21
56	Conversion of methanol to hydrocarbons over zeolite ZSM-23 (MTT): exceptional effects of particle size on catalyst lifetime. *Chemical Communications*, **2017**, 53, 6816-6819	5.8	20
55	Formation and Functioning of Bimetallic Nanocatalysts: The Power of X-ray Probes. *Angewandte Chemie - International Edition*, **2019**, 58, 13220-13230	16.4	20
54	Understanding zeolite-catalyzed benzene methylation reactions by methanol and dimethyl ether at operating conditions from first principle microkinetic modeling and experiments. *Catalysis Today*, **2018**, 312, 35-43	5.3	20
53	Selective Conversion of CO2 into Propene and Butene. *CheM*, **2020**, 6, 3344-3363	16.2	19
52	The impact of reaction conditions and material composition on the stepwise methane to methanol conversion over Cu-MOR: An operando XAS study. *Catalysis Today*, **2019**, 336, 99-108	5.3	19
51	Impact of post-synthetic treatments on unidirectional H-ZSM-22 zeolite catalyst: Towards improved clean MTG catalytic process. *Catalysis Today*, **2018**, 299, 135-145	5.3	17
50	Microkinetic evaluation of normal and inverse kinetic isotope effects during methane steam reforming to synthesis gas over a Ni/NiAl2O4 model catalyst. *Applied Catalysis A: General*, **2015**, 492, 231-242	5.1	17
49	Phosphorous Modified ZSM-5 Zeolites: Impact on Methanol Conversion into Olefins. *Topics in Catalysis*, **2015**, 58, 826-832	2.3	16

48	Controlling the Synthesis of Metal-Organic Framework UiO-67 by Tuning Its Kinetic Driving Force. *Crystal Growth and Design*, **2019**, 19, 4246-4251	3.5	16
47	Co-conversion of methanol and light alkenes over acidic zeolite catalyst H-ZSM-22: Simulated recycle of non-gasoline range products. *Applied Catalysis A: General*, **2015**, 494, 68-76	5.1	16
46	Tuning the material and catalytic properties of SUZ-4 zeolites for the conversion of methanol or methane. *Microporous and Mesoporous Materials*, **2018**, 265, 112-122	5.3	15
45	Methane Steam Reforming Over $Ni/NiAl_2O_4$ Catalyst: The Effect of Steam-to-Methane Ratio. *Topics in Catalysis*, **2011**, 54, 1063-1069	2.3	15
44	A Highly Stable Copper-Based Catalyst for Clarifying the Catalytic Roles of Cu^0 and Cu^+ Species in Methanol Dehydrogenation. *Angewandte Chemie*, **2018**, 130, 1854-1858	3.6	14
43	Methanol Conversion to Hydrocarbons (MTH) Over H-ITQ-13 (ITH) Zeolite. *Topics in Catalysis*, **2014**, 57, 143-158	2.3	14
42	Evolution of Pt and Pd species in functionalized UiO-67 metal-organic frameworks. *Catalysis Today*, **2019**, 336, 33-39	5.3	13
41	Influence of post-synthetic modifications on the composition, acidity and textural properties of ZSM-22 zeolite. *Catalysis Today*, **2018**, 299, 120-134	5.3	13
40	Understanding and Optimizing the Performance of Cu-FER for The Direct CH_4 to CH_3OH Conversion. *ChemCatChem*, **2019**, 11, 621-627	5.2	13
39	Finding the active species: The conversion of methanol to aromatics over Zn-ZSM-5/alumina shaped catalysts. *Journal of Catalysis*, **2021**, 394, 416-428	7.3	13
38	A temporal analysis of products (TAP) study of C2-C4 alkene reactions with a well-defined pool of methylating species on ZSM-22 zeolite. *Journal of Catalysis*, **2020**, 385, 300-312	7.3	11
37	A Systematic Study of Isomorphically Substituted H-MAlPO-5 Materials for the Methanol-to-Hydrocarbons Reaction. *ChemPhysChem*, **2018**, 19, 484-495	3.2	11
36	Methanol-to-Hydrocarbons **2008**, 2950		11
35	A Toroidal Zr Oxysulfate Cluster and Its Diverse Packing Structures. *Angewandte Chemie - International Edition*, **2020**, 59, 21397-21402	16.4	11
34	Zeolite morphology and catalyst performance: conversion of methanol to hydrocarbons over offretite. *Catalysis Science and Technology*, **2017**, 7, 5435-5447	5.5	10
33	Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Small-Pore Zeolites. *Angewandte Chemie - International Edition*, **2021**, 60, 10016-10022	16.4	10
32	Design and in situ synthesis of hierarchical SAPO-34@kaolin composites as catalysts for methanol to olefins. *Catalysis Science and Technology*, **2019**, 9, 6438-6451	5.5	10
31	On the conversion of CO_2 to value added products over composite PdZn and H-ZSM-5 catalysts: excess Zn over Pd, a compromise or a penalty?. *Catalysis Science and Technology*, **2020**, 10, 4373-4385	5.5	9

30	Comparing the Nature of Active Sites in Cu-loaded SAPO-34 and SSZ-13 for the Direct Conversion of Methane to Methanol. *Catalysts*, **2020**, 10, 191	4	9
29	Conclusive Evidence for Two Unimolecular Pathways to Zeolite-Catalyzed De-alkylation of the Heptamethylbenzenium Cation. *ChemCatChem*, **2015**, 7, 4143-4147	5.2	9
28	Watching the Methanol-to-Olefin Process with Time- and Space-Resolved High-Energy Operando X-ray Diffraction. *Angewandte Chemie*, **2012**, 124, 8080-8083	3.6	9
27	The fast Z-scan method for studying working catalytic reactors with high energy X-ray diffraction: ZSM-5 in the methanol to gasoline process. *Physical Chemistry Chemical Physics*, **2013**, 15, 8662-71	3.6	9
26	Co-catalyst free ethene dimerization over Zr-based metal-organic framework (UiO-67) functionalized with Ni and bipyridine. *Catalysis Today*, **2021**, 369, 193-202	5.3	9
25	CO2 hydrogenation to methanol and hydrocarbons over bifunctional Zn-doped ZrO2/zeolite catalysts. *Catalysis Science and Technology*, **2021**, 11, 1249-1268	5.5	8
24	Tailoring Cu Nanoparticle Catalyst for Methanol Synthesis Using the Spinning Disk Reactor. *Materials*, **2018**, 11,	3.5	7
23	Thermodynamic Control of Product Formation During the Reaction Between CH4 and Pt Promoted Ceria-zirconia Solid Solutions. *Catalysis Letters*, **2011**, 141, 8-14	2.8	7
22	A XAFS study of the local environment and reactivity of Pt- sites in functionalized UiO-67 MOFs. *Journal of Physics: Conference Series*, **2016**, 712, 012125	0.3	6
21	Modulation of the Thermochemical Stability and Adsorptive Properties of MOF-808 by the Selection of Non-structural Ligands. *Chemistry of Materials*, **2021**, 33, 1471-1476	9.6	6
20	Cu-Exchanged Ferrierite Zeolite for the Direct CH4 to CH3OH Conversion: Insights on Cu Speciation from X-Ray Absorption Spectroscopy. *Topics in Catalysis*, **2019**, 62, 712-723	2.3	5
19	Supported Nickel Based Catalysts, Ni/Mg(Al)O, for Natural Gas Conversion, Prepared via Delamination and Restacking of MgAl- and NiAl-Nanosheets. *Topics in Catalysis*, **2015**, 58, 877-886	2.3	5
18	Ethene and butene oligomerization over isostructural H-SAPO-5 and H-SSZ-24: Kinetics and mechanism. *Chinese Journal of Catalysis*, **2019**, 40, 1766-1777	11.3	5
17	Multifunctional Catalyst Combination for the Direct Conversion of CO to Propane. *Jacs Au*, **2021**, 1, 1719-1732		5
16	Formation and Functioning of Bimetallic Nanocatalysts: The Power of X-ray Probes. *Angewandte Chemie*, **2019**, 131, 13354-13364	3.6	3
15	A Toroidal Zr70 Oxysulfate Cluster and Its Diverse Packing Structures. *Angewandte Chemie*, **2020**, 132, 21581-21586	3.6	3
14	Highly effective conversion of CO2 into light olefins abundant in ethene. *CheM*, **2022**,	16.2	3
13	Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Small-Pore Zeolites. *Angewandte Chemie*, **2021**, 133, 10104-10110	3.6	3

12	Influence of Cu-speciation in mordenite on direct methane to methanol conversion: Multi-Technique characterization and comparison with NH3 selective catalytic reduction of NOx. *Catalysis Today*, **2021**, 369, 105-111	5.3	3
11	MAPO-18 Catalysts for the Methanol to Olefins Process: Influence of Catalyst Acidity in a High-Pressure Syngas (CO and H) Environment.. *ACS Catalysis*, **2022**, 12, 1520-1531	13.1	2
10	Acidity effect on benzene methylation kinetics over substituted H-MeAlPO-5 catalysts. *Journal of Catalysis*, **2021**,	7.3	2
9	Synchronizing gas injections and time-resolved data acquisition for perturbation-enhanced APXPS experiments. *Review of Scientific Instruments*, **2021**, 92, 044101	1.7	2
8	Fossil Fuels: The Effect of Zeolite Catalyst Particle Morphology on Catalyst Performance in the Conversion of Methanol to Hydrocarbons **2017**, 1-40		1
7	Katalytische Umwandlung von Synthesegas in Olefine �ber Methanol in einem Arbeitsgang. *Angewandte Chemie*, **2016**, 128, 7412-7414	3.6	1
6	Structural Elucidation, Aggregation, and Dynamic Behaviour of N,N,N,N-Copper(I) Schiff Base Complexes in Solid and in Solution: A Combined NMR, X-ray Spectroscopic and Crystallographic Investigation. *European Journal of Inorganic Chemistry*, **2021**, 2021, 4762	2.3	0
5	New route for the synthesis of Co-MOF from metal substrates. *Microporous and Mesoporous Materials*, **2021**, 324, 111310	5.3	0
4	R�ktitelbild: A Toroidal Zr70 Oxysulfate Cluster and Its Diverse Packing Structures (Angew. Chem. 48/2020). *Angewandte Chemie*, **2020**, 132, 21972-21972	3.6	
3	Hydrocarbon Processing: Catalytic Combustion and Partial Oxidation to Syngas **2014**, 198-215		
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